CS550 Assignment Six

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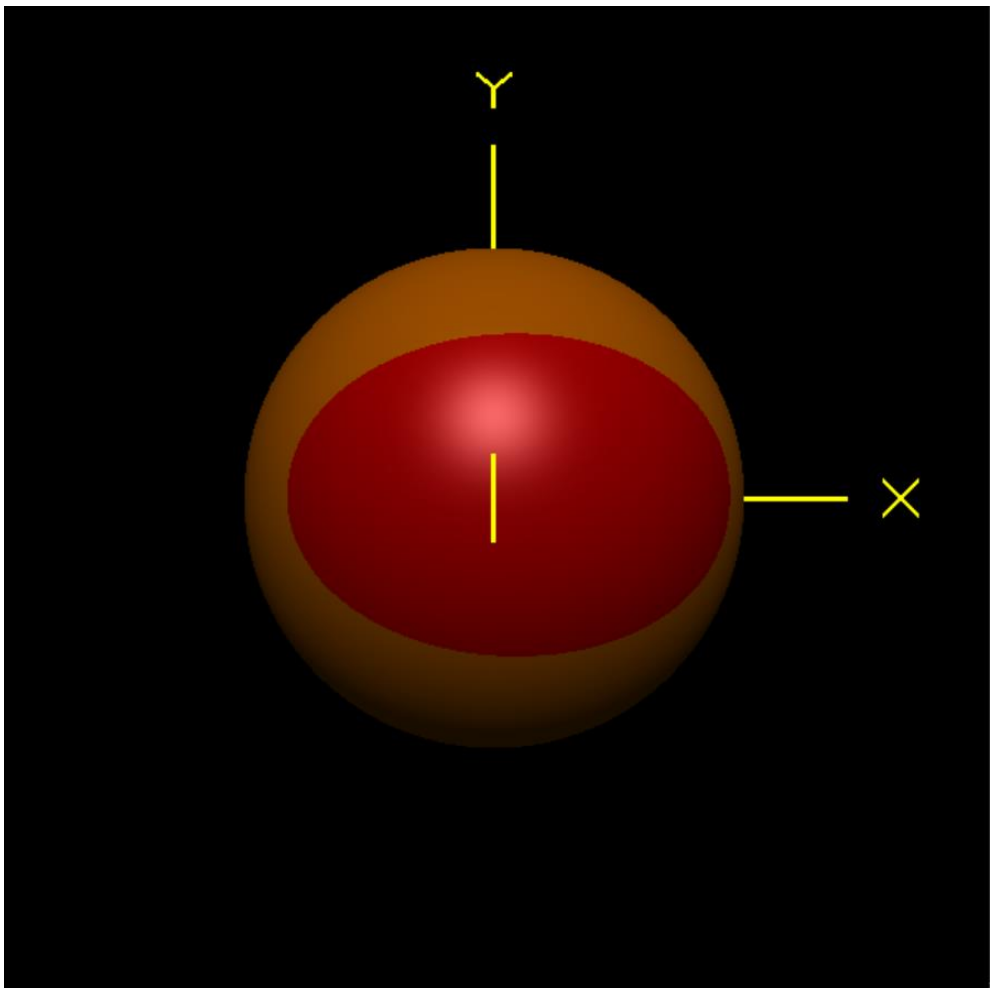
In this project, I created a 3D object with texture coordinates and implemented a custom shader in GLSL using the GLSLProgram C++ class, leveraging vertex and fragment shaders (pattern.vert and pattern.frag). The vertex shader transforms vertices and passes texture coordinates, normal, eye, and light vectors to the fragment shader, which then uses these along with uniform variables for lighting and ellipse parameters. The fragment shader determines the color of each fragment based on its position relative to a time-varying ellipse and applies per-fragment lighting to the chosen color. Keytime and time-based animations for the ellipse are controlled via keyboard inputs ('k' for keytime animation and 't' for time-based animation), allowing for dynamic visualization of the shader's effects on the 3D object.



Link: CS 550 Assignment Six - OSU MediaSpace (oregonstate.edu)